

Geology Highlights Along

2006 Route

Day 1 Sunday, June 18 Cortez to Durango

One of a couple of dome-shaped mountains we'll see today, Ute Peak is a prominent landmark southwest of Cortez, on the Ute Indian Reservation. The other—La Plata Mountains—is north of our route, just past the half-way point. These volcanic laccoliths form when a feeder dike intrudes magma between sedimentary layers and bows them up; subsequent erosion of encasing sedimentary layers reveals the dome structure.

Mesa Verde National Park—probable namesake of the ~72 to 82 million-year-old Mesaverde Group sandstone, shale, and coal—is a short but steep detour south of our route. Impressive sandstone alcoves were home to Ancestral Puebloans through the 1200s.



START
Cortez

Day 2 Monday, June 19 Durango to Pagosa Springs

The series of sandstone and shale beds we cross today reflects shallow-marine, shoreline, and swamp conditions during the Cretaceous Period (~66 to 144 million years ago) when a seaway flooded Colorado and dinosaurs roamed. Chimney Rock is the most distinguishing feature we'll pass on today's ride, rising more than 1,000 ft (305 m) above the surrounding landscape.

Sandstone forms the hard cap at the top of Chimney Rock. Finally, we drop from sandstone that has been folded and pushed into place above younger rocks into the shale-floored valley of Pagosa Springs.



Durango

Day 3 Tuesday, June 20 Pagosa Springs to Chama, N.M.

Ground water superheated by the still-hot rocks of the San Juan volcanic field supplies the springs that give Pagosa Springs its name. Continuing our path through the Cretaceous seaway, the undulating shale and sandstone terrain takes us between the volcanic San Juan Mountains on the east and the major oil- and gas-producing San Juan Basin on the west.

Pagosa Springs



Day 5 Thursday, June 22 Alamosa to Salida

As we pedal up the virtually flat San Luis Valley, imagine a lake here during the middle Pleistocene (some 450,000 years ago). Lining the east side of the valley, the Sangre de Cristo Mountains

are so named because of the reddish upper Paleozoic rocks (245 to 320 million years old). Great Sand dunes National Monument and Preserve lies east of our route; the Dunes are the tallest in North America (700 ft, 215 m), and started forming at the end of the last Ice Age (about 12,000 years ago). Precambrian metamorphic rocks are exposed along our route to Poncha Pass at the saddle between the Sawatch and Sangre de Cristo Ranges.



Poncha Pass
9,020 ft

Alamosa

La Manga Pass
10,230 ft

Cumbres Pass
10,022 ft

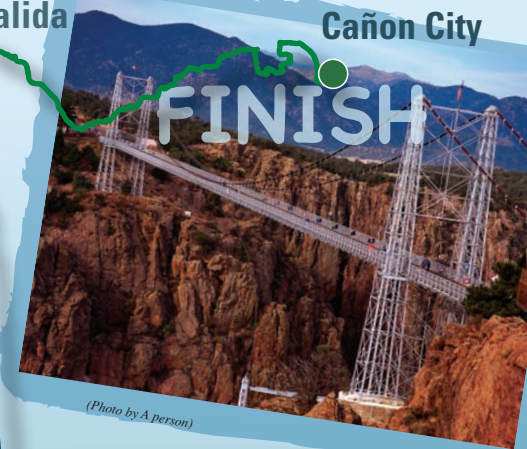
Chama



Ride The Rockies!

Salida

Cañon City



Day 6 Friday, June 23 Salida to Cañon City

The Arkansas River takes a sharp turn to the east at Salida—the Spanish word for exit—and flows down-canyon east to Canon City and the plains. Mid-Tertiary regional uplift (beginning 28 million years ago and accelerating 10 to 5 million years ago) enabled the river to cut a spectacular chasm through Precambrian (1.7 to 1.8 billion years old) granite and metamorphic rocks, forming Royal Gorge, a 1,200-feet (365-m) deep canyon.

Day 4 Wednesday, June 21 Chama, N.M., to Alamosa

After skirting the San Juan Mountains for several days, today we'll pedal through the southern portion. Layer after layer of ash-flow tuff erupted 27 to 30 million years ago from the Platoro and Summitville calderas, forming extensive sheets over andesitic lava flows and breccias of dissected stratovolcanoes. As we descend through the

Conejos River valley—a tributary to the Rio Grande—and into the San Luis Valley, the rocks of the San Juan volcanic field become buried by basin-fill sediments and basaltic rocks related to the extension of the Rio Grande rift.